

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C30D010 EX4C309040 4LBSQLWWH**

Issue Date: 2/18/2022



**Test Information**

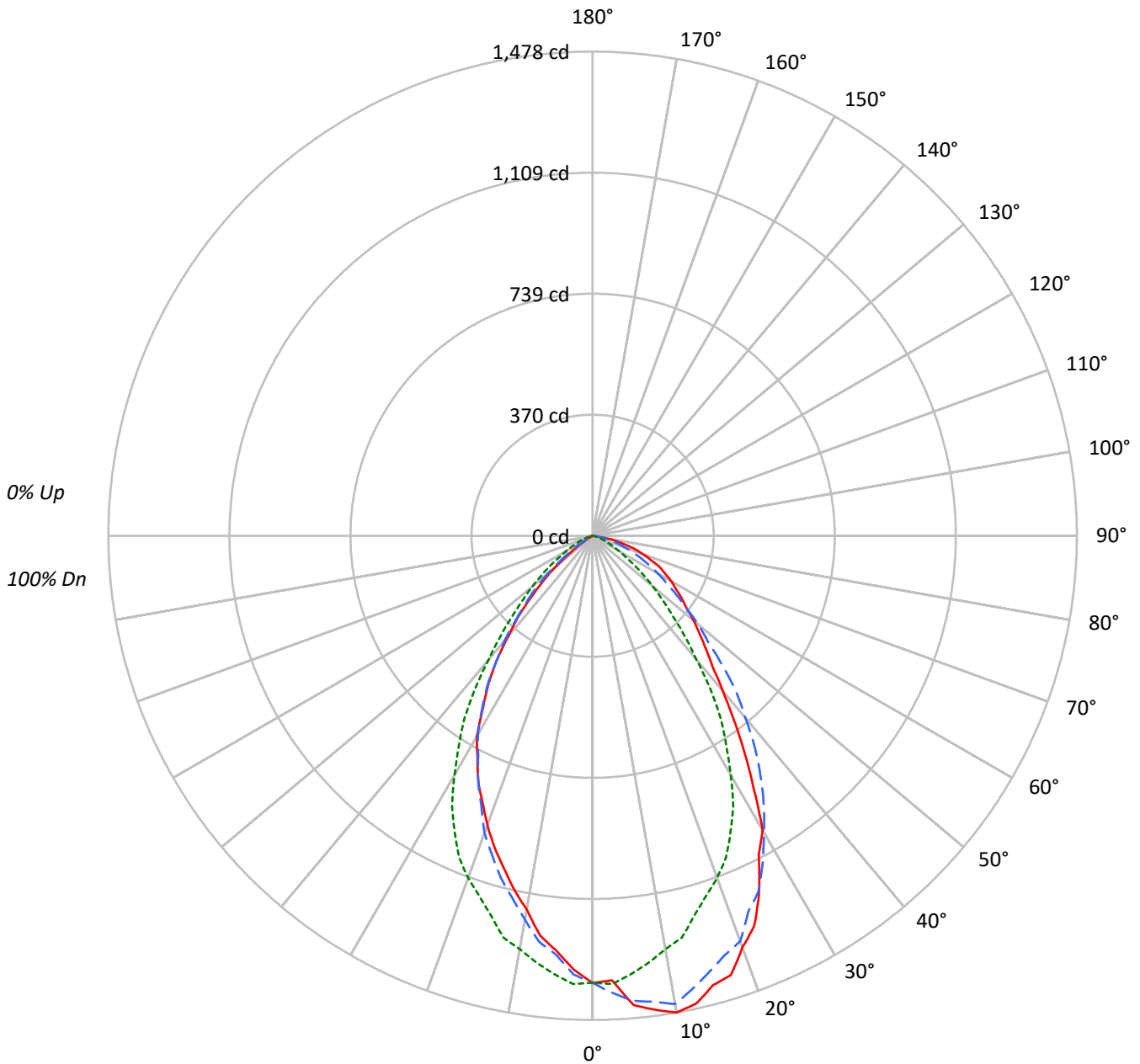
Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C30D010 EX4C309040 4LBSQLWWH  
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1956.0 lumens  
Efficiency: N/A  
Efficacy: 61.9 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.6  
Input Voltage (V):  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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CATALOG NUMBER: LD4C30D010 EX4C309040 4LBSQLWWH

### Luminous Intensity Polar Plot





TEST NUMBER: P#

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41																			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	131669	131669	131669
5°	139300	130109	123135
10°	144762	125529	113497
15°	141868	119801	104767
20°	137264	114079	96438
25°	128033	106080	87971
30°	115583	93879	78760
35°	95211	80369	65339
40°	77703	62034	50282
45°	66754	47118	36174
50°	60419	35861	22847
55°	55598	25873	8260
60°	53358	17677	1254
65°	51553	11964	388
70°	46154	8294	480
75°	37840	4287	0
80°	23671	1834	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.9	6.5
10°-20°	344.5	17.6
20°-30°	460.0	23.5
30°-40°	436.6	22.3
40°-50°	301.8	15.4
50°-60°	166.8	8.5
60°-70°	82.8	4.2
70°-80°	32.6	1.7
80°-90°	3.1	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	932.3	47.7
0°-40°	1368.9	70.0
0°-60°	1837.5	93.9
0°-90°	1956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1956.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1365	1365	1365	1365	1365	
5°	1438	1425	1343	1283	1271	138
15°	1420	1378	1199	1082	1049	402
25°	1203	1198	996	826	826	548
35°	808	893	682	561	555	506
45°	489	561	345	283	265	382
55°	330	311	154	78	49	297
65°	226	164	52	2	2	219
75°	102	62	12	0	0	108
85°	0	2	0	0	0	9
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309040 4LBSQLWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1358.0	1395.6	1398.9	1395.6	1400.6	1398.9	1407.1	1398.9	1408.8	1394.0	1397.3
5°	1438.2	1423.5	1454.6	1438.2	1438.2	1436.6	1431.7	1430.0	1436.6	1415.3	1425.1
7.5°	1459.5	1480.8	1508.6	1474.2	1475.8	1475.8	1466.0	1462.8	1462.8	1423.5	1434.9
10°	1477.5	1464.4	1479.1	1466.0	1477.5	1475.8	1482.4	1461.1	1475.8	1452.9	1451.3
12.5°	1462.8	1457.8	1477.5	1456.2	1449.7	1451.3	1443.1	1438.2	1443.1	1416.9	1415.3
15°	1420.2	1425.1	1454.6	1431.7	1428.4	1425.1	1415.3	1398.9	1412.1	1376.0	1377.7
17.5°	1405.5	1397.3	1402.2	1382.6	1387.5	1384.2	1382.6	1367.9	1364.6	1341.7	1341.7
20°	1336.8	1354.7	1354.7	1341.7	1341.7	1340.1	1318.8	1331.9	1317.1	1310.6	1317.1
22.5°	1289.3	1291.0	1291.0	1279.5	1281.2	1274.6	1263.1	1254.9	1263.1	1254.9	1241.9
25°	1202.6	1205.9	1225.5	1204.2	1201.0	1207.5	1197.7	1192.8	1191.2	1171.5	1197.7
27.5°	1097.9	1130.6	1129.0	1120.8	1130.6	1117.5	1112.6	1114.2	1119.2	1117.5	1124.0
30°	1037.4	1042.2	1047.2	1040.6	1042.2	1037.4	1037.4	1039.0	1052.1	1047.2	1045.5
32.5°	914.6	931.0	944.1	944.1	945.7	950.6	949.0	983.3	991.5	975.2	971.9
35°	808.3	819.7	831.2	832.8	854.1	855.7	857.4	867.2	890.1	895.0	893.3
37.5°	706.9	718.3	721.5	736.3	747.8	759.2	772.3	785.4	805.0	821.3	813.2
40°	616.9	621.7	629.9	636.5	659.4	659.4	665.9	692.1	713.4	726.5	724.8
42.5°	541.6	543.2	549.7	561.2	582.5	577.6	582.5	600.5	631.5	633.2	651.2
45°	489.2	487.6	492.5	494.1	507.2	513.8	517.1	530.1	556.3	559.6	561.2
47.5°	441.8	440.1	448.3	451.6	456.5	463.0	463.0	464.7	474.5	482.7	476.2
50°	402.5	402.5	402.5	405.8	414.0	412.3	414.0	420.5	425.4	422.1	420.5
52.5°	359.9	366.5	371.4	373.1	374.7	374.7	376.3	373.1	371.4	366.5	356.7
55°	330.5	337.1	337.1	337.1	337.1	343.6	335.4	337.1	337.1	324.0	310.9
57.5°	301.1	307.6	312.5	306.0	312.5	306.0	302.7	301.1	297.8	284.7	265.1
60°	276.5	279.8	278.1	276.5	279.8	274.9	271.6	265.1	261.8	243.8	230.7
62.5°	248.7	250.3	252.0	248.7	245.4	243.8	237.2	227.4	220.9	206.2	194.7
65°	225.8	220.9	219.2	217.6	214.4	209.4	204.6	193.1	188.1	175.1	163.6
67.5°	191.4	189.8	193.1	188.1	180.0	180.0	175.1	165.3	153.8	145.6	134.2
70°	163.6	162.0	158.7	153.8	152.2	145.6	145.6	134.2	130.9	116.2	106.3
72.5°	134.2	134.2	129.2	124.4	119.4	116.2	114.6	106.3	101.5	93.3	85.1
75°	101.5	101.5	99.8	94.9	91.6	88.3	86.7	80.2	75.3	67.1	62.2
77.5°	72.0	72.0	65.4	62.2	63.8	60.5	57.2	55.6	54.0	49.1	42.6
80°	42.6	40.9	36.0	37.6	36.0	36.0	34.4	32.7	29.4	26.2	22.9
82.5°	11.5	13.1	13.1	13.1	14.7	11.5	11.5	11.5	13.1	13.1	8.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	1.7
87.5°	1.7	3.3	6.5	6.5	6.5	6.5	6.5	4.9	4.9	4.9	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309040 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1381.0	1379.3	1381.0	1369.5	1395.6	1376.0	1372.8	1369.5	1381.0	1369.5	1353.1
5°	1410.4	1394.0	1389.1	1384.2	1398.9	1376.0	1371.2	1372.8	1364.6	1343.3	1344.9
7.5°	1420.2	1405.5	1390.8	1359.7	1372.8	1367.9	1354.7	1344.9	1331.9	1313.8	1310.6
10°	1423.5	1407.1	1385.8	1376.0	1356.4	1349.9	1344.9	1328.6	1312.2	1281.2	1272.9
12.5°	1413.7	1394.0	1367.9	1359.7	1344.9	1323.7	1312.2	1295.8	1281.2	1256.6	1238.6
15°	1371.2	1354.7	1346.6	1318.8	1312.2	1299.1	1276.2	1253.3	1232.1	1199.3	1189.5
17.5°	1322.1	1315.5	1307.3	1286.0	1284.4	1271.3	1250.1	1230.4	1202.6	1151.9	1135.5
20°	1271.3	1271.3	1245.1	1237.0	1253.3	1227.1	1210.8	1192.8	1135.5	1111.0	1081.5
22.5°	1233.7	1215.7	1201.0	1187.9	1189.5	1173.1	1150.3	1114.2	1092.9	1063.5	1029.2
25°	1160.1	1166.6	1133.9	1129.0	1133.9	1096.2	1084.8	1055.3	1024.2	996.4	970.3
27.5°	1114.2	1096.2	1075.0	1057.0	1057.0	1042.2	1009.6	1003.0	955.5	929.4	896.6
30°	1045.5	1032.4	1014.4	988.3	985.0	973.5	947.4	931.0	881.9	842.6	824.6
32.5°	958.8	953.9	939.2	909.7	899.9	886.8	854.1	826.3	803.4	759.2	737.9
35°	896.6	878.7	847.6	823.0	814.8	791.9	765.7	746.1	721.5	682.3	654.5
37.5°	803.4	785.4	755.9	726.5	726.5	703.6	667.6	647.9	613.6	590.6	567.8
40°	721.5	698.7	669.2	634.9	629.9	597.2	582.5	549.7	528.5	492.5	489.2
42.5°	629.9	608.7	582.5	556.3	536.7	520.3	482.7	458.1	435.3	417.2	412.3
45°	546.5	518.7	495.8	463.0	443.4	423.8	399.2	382.9	364.9	345.3	333.8
47.5°	474.5	451.6	418.8	389.4	369.8	359.9	332.1	314.2	299.4	286.3	278.1
50°	400.9	373.1	355.1	322.3	319.0	296.2	273.3	258.5	250.3	238.9	227.4
52.5°	345.3	319.0	294.5	270.0	256.9	248.7	227.4	212.7	201.3	193.1	186.5
55°	291.2	268.3	248.7	224.2	216.0	204.6	180.0	176.7	165.3	153.8	145.6
57.5°	250.3	229.0	206.2	189.8	175.1	166.9	147.2	134.2	127.6	117.8	109.6
60°	212.7	189.8	171.8	152.2	145.6	134.2	119.4	108.0	99.8	91.6	83.5
62.5°	178.3	158.7	139.1	122.7	112.9	106.3	94.9	85.1	76.9	70.4	63.8
65°	147.2	129.2	112.9	96.5	91.6	83.5	75.3	67.1	60.5	52.4	45.8
67.5°	121.1	104.7	88.3	76.9	72.0	68.7	58.9	50.7	45.8	40.9	34.4
70°	94.9	83.5	70.4	60.5	55.6	50.7	44.2	39.3	32.7	29.4	24.6
72.5°	73.7	63.8	52.4	44.2	40.9	37.6	31.1	26.2	22.9	19.6	16.3
75°	52.4	44.2	37.6	29.4	27.8	26.2	21.3	18.0	14.7	11.5	9.8
77.5°	36.0	29.4	22.9	19.6	18.0	14.7	13.1	9.8	8.2	6.5	4.9
80°	19.6	14.7	11.5	9.8	8.2	6.5	6.5	4.9	3.3	3.3	1.7
82.5°	6.5	4.9	3.3	1.7	1.7	1.7	1.7	1.7	1.7	0.0	1.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309040 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1362.9	1344.9	1349.9	1349.9	1346.6	1346.6	1343.3	1338.4	1340.1	1330.2	1309.0
5°	1348.2	1325.3	1322.1	1325.3	1312.2	1309.0	1302.4	1312.2	1282.8	1294.2	1281.2
7.5°	1305.7	1284.4	1279.5	1291.0	1274.6	1264.7	1263.1	1276.2	1250.1	1237.0	1222.2
10°	1258.2	1250.1	1235.3	1227.1	1222.2	1223.8	1210.8	1194.4	1189.5	1186.2	1173.1
12.5°	1215.7	1197.7	1184.6	1174.8	1171.5	1171.5	1150.3	1147.0	1132.2	1129.0	1109.4
15°	1164.9	1143.7	1135.5	1122.4	1111.0	1117.5	1092.9	1086.4	1081.5	1060.3	1063.5
17.5°	1120.8	1097.9	1078.3	1070.1	1060.3	1050.4	1027.5	1032.4	1021.0	1021.0	991.5
20°	1063.5	1039.0	1024.2	1007.9	1007.9	994.8	978.5	980.1	965.3	950.6	924.4
22.5°	1003.0	976.8	958.8	952.2	935.9	932.6	913.0	908.1	888.5	890.1	867.2
25°	939.2	913.0	888.5	890.1	875.4	868.8	857.4	834.5	826.3	816.5	809.9
27.5°	863.9	845.9	824.6	823.0	795.2	796.8	782.1	775.6	755.9	760.8	746.1
30°	795.2	769.0	749.4	744.5	733.0	729.7	706.9	697.0	700.3	687.2	679.0
32.5°	724.8	685.6	677.4	667.6	661.0	652.8	636.5	643.0	628.3	631.5	618.5
35°	631.5	615.2	593.9	593.9	587.4	580.8	569.4	576.0	561.2	554.7	541.6
37.5°	553.0	538.3	517.1	523.6	512.1	502.3	492.5	494.1	481.0	479.4	466.3
40°	467.9	459.7	445.1	445.1	436.9	436.9	431.9	427.1	418.8	409.0	394.3
42.5°	387.8	381.2	374.7	376.3	364.9	374.7	361.6	369.8	343.6	342.0	332.1
45°	328.8	314.2	315.8	309.2	302.7	306.0	294.5	297.8	283.1	279.8	270.0
47.5°	266.7	261.8	252.0	248.7	248.7	243.8	238.9	237.2	230.7	222.5	209.4
50°	219.2	201.3	197.9	193.1	189.8	189.8	183.3	173.5	175.1	166.9	153.8
52.5°	171.8	157.1	150.5	148.9	142.4	139.1	130.9	124.4	119.4	116.2	108.0
55°	132.5	119.4	111.3	111.3	101.5	101.5	90.0	85.1	78.5	72.0	67.1
57.5°	99.8	93.3	85.1	78.5	75.3	67.1	60.5	52.4	47.4	37.6	31.1
60°	75.3	68.7	60.5	55.6	52.4	44.2	36.0	29.4	18.0	14.7	13.1
62.5°	55.6	49.1	40.9	37.6	34.4	27.8	19.6	9.8	4.9	4.9	4.9
65°	40.9	32.7	26.2	22.9	19.6	14.7	6.5	3.3	1.7	1.7	1.7
67.5°	27.8	21.3	14.7	13.1	9.8	4.9	1.7	1.7	1.7	1.7	1.7
70°	18.0	13.1	6.5	4.9	3.3	1.7	1.7	1.7	1.7	1.7	1.7
72.5°	11.5	6.5	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.5	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309040 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1331.9	1320.4	1326.9	1312.2	1318.8	1330.2	1322.1	1325.3
5°	1286.0	1279.5	1271.3	1250.1	1266.4	1279.5	1272.9	1271.3
7.5°	1237.0	1214.0	1225.5	1219.0	1215.7	1228.8	1214.0	1230.4
10°	1186.2	1169.9	1168.3	1156.8	1156.8	1166.6	1168.3	1158.4
12.5°	1111.0	1102.8	1102.8	1101.2	1099.5	1109.4	1111.0	1106.1
15°	1057.0	1053.7	1045.5	1043.9	1034.1	1048.8	1050.4	1048.8
17.5°	991.5	993.1	985.0	985.0	991.5	996.4	983.3	996.4
20°	947.4	939.2	935.9	921.2	929.4	937.6	937.6	939.2
22.5°	883.5	870.4	875.4	867.2	862.2	873.7	873.7	878.7
25°	811.5	811.5	814.8	809.9	813.2	819.7	814.8	826.3
27.5°	742.8	749.4	749.4	742.8	746.1	765.7	773.9	760.8
30°	679.0	680.6	685.6	682.3	692.1	698.7	697.0	706.9
32.5°	607.1	615.2	618.5	613.6	616.9	631.5	623.4	621.7
35°	551.4	536.7	535.1	536.7	543.2	546.5	543.2	554.7
37.5°	471.2	466.3	459.7	461.4	466.3	472.9	476.2	484.3
40°	394.3	387.8	387.8	386.2	381.2	399.2	399.2	399.2
42.5°	327.2	325.6	317.4	317.4	324.0	328.8	325.6	337.1
45°	268.3	261.8	256.9	256.9	261.8	261.8	266.7	265.1
47.5°	211.1	204.6	206.2	201.3	206.2	212.7	204.6	206.2
50°	158.7	158.7	155.4	158.7	157.1	158.7	155.4	152.2
52.5°	108.0	122.7	124.4	117.8	103.1	90.0	81.8	88.3
55°	62.2	55.6	55.6	54.0	50.7	49.1	44.2	49.1
57.5°	31.1	27.8	27.8	27.8	26.2	24.6	21.3	21.3
60°	13.1	11.5	11.5	9.8	8.2	6.5	4.9	6.5
62.5°	4.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3
65°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
67.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
70°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)